Appl. No. 10/058,776
Amdt. dated January 6, 2006
Reply to Office Action of October 13, 2005

Amendments to the Caims

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claim1 (Original) A method of controlling how many data transmission units (DTUs) are processed by a device, the device processing both high priority DTUs and low priority DTUs, the method comprising: a) establishing a desired minimum number of DTUs processed in a given time interval (MCR); b) establishing a desired maximum number of DTUs processed in the given time interval (PCR); c) for high priority DTUs, requesting a maximum of MCR DTUs for processing for every specific interval of time; d) for low priority DTUs, requesting a maximum of (PCR-MCR) DTUs for processing for every specific interval of time; e) determining at an output stage of the device a number of DTUs output by the device in a given amount of time; f) transmitting the number determined in step e) to an input stage of the device; and g) changing a value of PCR based on the number determined in step e).

Claim 2 (Original) A method as in claim 1 wherein step f) is executed by distributing a token among multiple input stages, the token containing data related to measured processing capacity the devices.

Claim 3 (Original) A method as in claim 1 wherein the processing executed by the device is transmitting DTUs from the input stage to the output stage.

Claim 4 (Original) A method as in claim 1 wherein the value of PCR is also based on a specific predetermined sharing factor.

Claim 5 (Original) A method as in claim 1 wherein step e) is repeated for multiple output stages.

Claim 6 (Original) A method as in claim 5 wherein step f) is executed by distributing a token among multiple input stages, the token containing data related to the number of DTUs output by the multiple output stages.

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Claim 7 (Original) A method as in claim 2 wherein the token is distributed among the multiple input stages using a highest priority protocol.

Claim 8 (Original) A method as in claim 7 wherein the token is distributed among the multiple input stages using a highest priority protocol.

Claim 9 (Original) A device for routing data transmission units (DTUs) from a source to a destination comprising: at least one input port for receiving incoming DTUs from the source; at least one output port for transmitting DTUs to the destination; a switch fabric for switching transmitting DTUs from one of the at least one input port to one of the at least one output port; a controller for controlling an input rate of the input port and for controlling an output rate of the output port; measurement means for measuring the output rate of the output port, the measurement means transmitting the output rate to the controller, wherein the controller adjusts the input rate based on the output rate.

Claim 10 (Original) A device as in claim 9 wherein the controller further controls how much transmission capacity of the at least one output port is allocated to data flow from any on the at least one input port.

Claim 11 (Original) A device as in claim 10 wherein the controller calculates and allocates output transmission capacity on the at least one output port between the at least one input port based on how much output transmission capacity is requested by any one of the at least one input port.

Claim 12 (Original) A method of allocating resource units between high priority tasks and low priority tasks, the method comprising: a) establishing a desired minimum number of resource units (x) to be allocated to a task; b) establishing a desired maximum number of resource units (y) to be allocated to a task; c) establishing a first upper limit to resource units to be requested for high priority tasks, the first upper limit being equal to the desired minimum number of resource units (x); and d) establishing a second upper limit to resource units to be requested for low priority tasks, the second upper limit being equal to the desired maximum number of resource units (y).

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Claim 13 (Original) A method as in claim 12 wherein the resource units are output data transmission rates.

Claim 14 (Original) A method as in claim 12 wherein the tasks are transmitting data transmission units (DTUs) from a source to a destination.

Claim 15 (Original) A method as in claim 12 wherein the desired maximum number of resource units (x) is periodically changed based on a measured indication relating to how many resource units are actually used in performing tasks.

Claim 16 (Original) A method as in claim 15 wherein the resource units are output data transmission rates.

Claim 17 (Original) A method as in claim 16 wherein the tasks are transmitting data transmission units (DTUs) from a source to a destination.

Claim 18 (Cancelled)